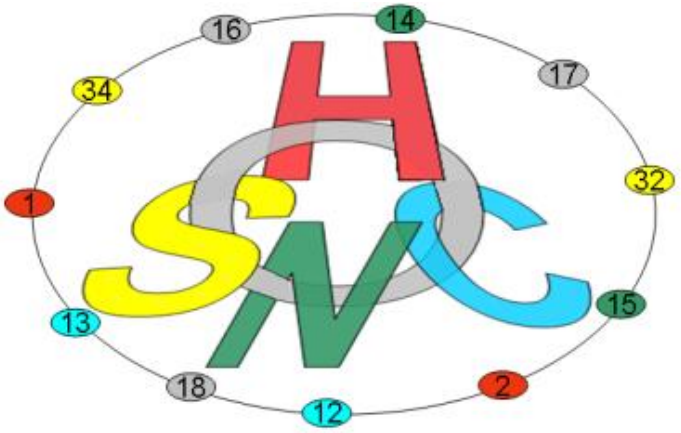
Società Chimica Italiana
Divisione di Spettrometria di Massa

FONDAZIONE EDMUND MACH

The 1st Isotope Ratio MS DAY



May 9-11, 2016

Fondazione Edmund Mach

S. Michele all'Adige (Trento, Italy)

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Enrico Brugnoli - CNR Roma

Federica Camin - Fondazione Edmund Mach

Luigi Dallai - CNR Pisa

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Fausto Grassa - Ist. Naz. Geofisica e Vulcanologia, Palermo

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Carmine Lubritto - Seconda Università degli Studi di Napoli

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Luigi Mondello - Università degli Studi di Messina

Barbara Stenni - Università Ca' Foscari, Venezia

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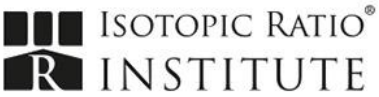

SCIENTIFIC PROGRAMME

Monday, May 9

1:00 p.m. – 2:30 p.m.	**Registration and poster installation**
2:30 p.m.– 3:00 p.m.	**Welcome and opening ceremony**
	Session 1: FOOD
	Chairpersons: Luigi Dallai, Paola Iacumin
3:00 p.m. – 3:30 p.m.	**PL1**: ***Working group stable isotope analytics of GDCh and its role with regard to food authentication in Germany*** *Andreas Rossmann* Isolab, Germany
3:30 p.m. – 3:45 p.m.	**OR1:** ***The influence of climate variability on chemical composition of European wines: a regional scale study (Italy and Slovenia)*** *Fabio Paolo Polo* Ca' Foscari University, Venezia, Italy
3:45 p.m. – 4:00 p.m.	**OR2:** ***Isotope ratio mass spectrometry in combination with chemometrics for the characterization of the geographical origin and the agronomical practice of table grape*** *Grazia Casiello* University of Bari "Aldo Moro", Bari, Italy
4:00 p.m. – 4:15 p.m.	**OR3:** ***Characterization of Mozzarella di Bufala Campana and farm production technique using C, N and O stable isotopes analysis: preliminary results*** *Simona Altieri* Second University of Naples, Napoli, Italy
4:15 p.m. – 4:45 p.m.	**Poster session & coffee break**
4:45 p.m. – 5:05 p.m.	**KN1:*State of the art Isotope Ratio Mass Spectrometry (IRMS) applied to food traceability*** *Lionnel Mounier* Thermo Fisher Scientific**,** Coutaboeuf, France
5:05 p.m. – 5:20 p.m.	**OR4:** ***Using GC/c/IRMS analysis to improve food traceability*** *Mauro Paolini* Fondaz. E.Mach, S. Michele all'Adige (TN), Italy
5:20 p.m. – 6:00 p.m.	**COSTITUZIONE DEL GRUPPO IRMS ITALIANO**
6:00 p.m.	**End of session**
6:00 p.m. – 7:00 p.m.	**Cocktail offered by Thermo Fischer Scientific**

Tuesday, May 10

8:30 a.m. – 9:00 a.m.	**Registration**
	Session 2: ISOSCAPES
	Chairpersons: Enrico Brugnoli, Federica Camin
9:00 a.m. – 9:30 a.m.	**PL2: Transforming rainwater isoscape patterns into effective applications for migratory wildlife conservation** *Len Wassenaar* IAEA, Wien, Austria
9:30 a.m.– 9:45 a.m.	**OR5:** ***The geographical origin of birds migrating through Alps: a stable isotope approach (δ^2H)*** *Alessandro Franzoi* Fondaz. E.Mach, S. Michele all'Adige (TN), Italy
9:45 a.m. – 10:00 a.m.	**OR6*****: Spatial- and spatio-temporal analysis of stable isotopes ratios in biogeochemical processes*** *Marco Ciolfi* CNR Institute of Agro-Environmental and Forest Biology Porano, Italy
10:00 a.m.– 10:15 a.m.	**OR7:** ***Olive ripening and cultivar effects on carbon stable isotope compositions of n-alkanes and fatty acids in extra-virgin olive oils*** *Silvia Portarena* CNR Institute of Agro-Environmental and Forest Biology Porano, Italy
10:15 a.m. – 11:00 a.m.	**Coffee break and poster session**
	Session 3: WATER
	Chairperson: Len Wassenaar
11:00 a.m. – 11:20 a.m.	**KN2*****: Reconstructing Antarctic climate over the last 2000 years by means of isotopic profiles*** *Barbara Stenni* Università Ca' Foscari Venezia, Italy
11:20 a.m. – 11:35 a.m.	**OR8:** ***Oxygen and hydrogen stable isotope content in daily-collected precipitation samples at Dome C, East Antarctica*** *Giuliano Dreossi* Università Ca' Foscari Venezia, Italy

11:35 a.m. – 11:50 p.m.	**OR9:** ***The "ISONITRATE Italy" project: exploring nitrate sources in polluted aquifers of the Po river alluvial plain (North Italy) by means of isotopic tecniques*** *Luisa Stellato* Seconda Università degli Studi di Napoli, Italy
11:50 p.m. – 12:05 p.m.	**OR10:** ***CNS stable isotopes in the Adige river waters: insights on natural and anthropogenic components*** *Chiara Marchina* Scuola Superiore S. Anna, Pisa, Italy
12:30 p.m. – 2:00 p.m.	**Lunch**
	Session 4: ENVIRONMENT
	Chairpersons: C. Lubritto, Barbara Stenni
2:00 p.m. – 2:20 p.m.	**KN3:** ***Simultaneous determination of $\delta^{13}C$ and $\delta^{18}O$ in CO_2 involved in leaf gas-exchange processes by means of isotope ratio infrared spectrometry (IRIS - Delta Raytm)*** *Marco Lauteri* National Research Council, Porano, Italy
2:20 p.m. – 2:35 p.m.	**OR11:** ***A multiparametric approach to study the forest ecosystem responses to environment*** *Martina Pollastrini* University of Florence, Italy
2:35 p.m. – 2:50 p.m.	**OR12:** ***Applications of carbon and nitrogen stable isotopes analyses in environmental studies*** *Federico Rampazzo* ISPRA STS Chioggia, Italy
2:50 p.m. – 3:05 p.m.	**OR13:** ***Long-term warming affects ^{13}C and ^{15}N allocation in a field-grown Mediterranean shrub Cistus Monspeliensis*** *Olga Gavrichkova* National Research Council, Porano, Italy

3:05 p.m. – 3:20 p.m.	**OR14:** ***Thermally based isotopic speciation of carbon pools in environmental matrices*** *Claudio Natali* University of Ferrara, Italy
3:20 p.m. – 3:40 p.m.	**KN4*****: Preliminary results from a microvolume, dynamically heated analytical column for preconcentration and separation of simple gases prior to stable isotopic analysis*** *Filip Volders* Elementar analysensysteme, Hanau, Germany
3:40 p.m. – 4:20 p.m.	**Coffee break and poster session**
	Session 5: SOIL
	Chairperson: F. Grassa, F. Marzaioli
4:20 p.m. – 4:35 p.m.	**OR15:** ***Elucidating the fate of applied nitrogen fertilizer in rice paddy soils by means of bulk and compound-specific stable isotope $\delta^{15}N$ techniques*** *Daniel Said-Pullicino* University of Turin, Italy
4:35 p.m. – 4:50 p.m.	**OR16:** ***Belowground carbon allocation patterns as determined by the in-growth soil core ^{13}C technique across different ecosystem types*** *Mirco Rodeghiero* Fondaz. E. Mach, S. Michele all'Adige (TN), Italy
4:50 p.m. – 5:05 p.m.	**OR17:** ***Carbon allocation and partitioning in mountain grassland ecosystems during drought stress and recovery*** *Angela Augusti* CNR, Porano, Italy
5:05 p.m. – 5:25 p.m.	**OR18:** ***Use of stable isotopes in agricultural sciences*** *Federica Tamburini* ETH, Zurich, Switzerland
5:25 p.m.	**End of session**
6:30 p.m.	**Guided tour of the Muse museum and social dinner**

Wednesday, May 11

	Session 6: DOPING AND ARCHAEOMETRY
	Chairpersons: Andreas Rossmann
9:15 a.m. – 9:35 a.m.	**KN5:** ***Detection of pseudo-endogenous steroids In doping control analyses by GC/c/IRMS*** *Xavier de La Torre* Laboratorio Antidoping Federazione Medico Sportiva Italiana, Roma, Italy
9:35 a.m. – 9:55 a.m.	**KN6:** ***Carbon and oxygen isotope data of carbonates and of structural carbonate of bioapatite: what are their meaning and possible use?*** *Paola Iacumin* University of Parma, Italy
9:55 a.m. – 10:10 a.m.	**OR19:** ***A multiproxy approach to study dietary habit in different historical contexts*** *Paola Ricci* Second University of Naples, Italy
10:10 a.m. – 10:25 a.m.	**OR20:** ***^{14}C mortar dating: selection of uncontaminated binder fractions by using stable carbon iIsotope analysis*** *Anna Addis* University of Padova, Italy
10:25 a.m. – 11:00 a.m.	**Coffee break and poster session**
	Session 7: NEW TECHNIQUES
	Chairperson: Xavier de La Torre
11:00 a.m. – 11:20 a.m.	**KN7:** ***High efficiency multidimensional gas chromatography coupled to isotope ratio mass spectrometry and quadrupole mass spectrometry simultaneous detection*** *Danilo Sciarrone* University of Messina, Italy

11:20 a.m. – 11:35 a.m.	**OR21*: Comparison of isotopic ratio mass spectrometry (IRMS), non-dispersive infrared spectroscopy (NDIRS) and infrared spectroscopy for the isotopic composition analysis of food*** *Concetta Pironti* University of Salerno, Italy
11:35 a.m. – 12:15 p.m.	**Round table**: stable isotopes: state-of-the-art, innovation & perspectives
12:15 p.m.	**Closing remarks and arrivederci!**

POSTER COMMUNICATIONS

P1 **Strontium isotopic ratio in agricultural products: research gaps and future investigations for its use in geographical traceability**

A. Aguzzoni, M. Bassi, F. Comiti, T. Mimmo, P. Robatscher, F. Scandellari, M. Tagliavini, W. Tirler

P2 **Analysis of the differences in water use strategies of three Mediterranean shrubs in Sardinia (Italy), through tree-rings C and O stable isotopes ratios**

S. Altieri, S. Mereu, P. Cherubini, S. Castaldi, C. Sirignano, C. Lubritto, G. Battipaglia

P3 **Effect of fruit removal on photosynthetic characteristics and carbon isotope composition in olive leaves**

A. Augusti, S. Portarena, A. Paoletti, D. Farinelli, A. Rosati, F. Famiani, M. Lauteri

P4 **Site-scale isotopic variations along a river course help localize drainage basin influence on river food webs**

F. Bentivoglio, E. Calizza, D. Rossi, P. Carlino, G. Careddu, L. Rossi, M. L. Costantini

P5 **Fermentation and re-fermentation process: effects on isotopic parameters in sweet wines**

R. Caruso, M. Fiorillo, G.L. Gambino, F. Thomas, P. Traulo, G. Gagliano

P6 **Isotope Ratio Mass Spectrometry in combination with chemometrics for the characterization of the geographical origin of sweet cherries**

F. Longobardi, G. Casiello, A. Ventrella, V. Mazzilli, A. Nardelli, D. Sacco, V. Centonze, L. Catucci, A. Agostiano

P7 **Carbon and oxygen isoscapes for geographical traceability of Italian extra virgin olive oils**

F. Chiocchini, S. Portarena, M. Ciolfi, E. Brugnoli, M. Lauteri

P8 **Diet reconstruction of the po valley people from neolithic to the early bronze age by stable isotopes**

A. Di Matteo, P. Iacumin

P9 **Effects of different zeolite amendments on plants C-N isotopic compositions**

G. Ferretti, C. Natali, B. Faccini, D. Di Giuseppe, G. Bianchini, M. Coltorti

P10 **Nature and origin of millennial-scale climate variability in the mid-latitude north atlantic ocean from foraminiferal $\delta^{18}O$ and $\delta^{13}C$**

P. Ferretti, S. J. Crowhurst, M. A. Hall, C. Barbante

P11 **Stable isotope ratios of H, C, and O in italian citrus juices**

M. Fiorillo, R. Caruso, G.L. Gambino, P. Traulo, G. Gagliano

P12 **The trophic ecology of migratory birds as shown by stable isotope ratios ($\delta^{13}C$, $\delta^{15}N$, $\delta^{34}S$)**

A. Franzoi, F. Camin, P. Pedrini, L. Bontempo

P13 **Geochemical and isotopic characterization of discharge waters from the Piz Boe´ active rock glacier, dolomites, eastern italian Alps**

J. Gabrieli, C. Turetta, L. Poto, A. Crepaz, A. Cagnati, B. Stenni, C. Barbante

P14 **Precision, accuracy and repeatability of sulfur determination in several matrices by elemental analysis**

L. Krotz, G. Giazzi

P15 **Carbon sequestration and distribution in soil aggregate fractions under miscanthus and giant reed in the Mediterranean area**

P. Gioacchini, F. Cattaneo, L. Barbanti, D. Montecchio, C. Ciavatta, C. Marzadori

P16 **Fate of N in soil amended with ^{15}N-labeled residues of winter cereals combined with an organic n fertilizer**

P. Gioacchini, D. Montecchio, E. Gnudi, V. Terzi, A.M. Stanca, C. Ciavatta, C. Marzadori

P17 **Stable isotope signatures of fluids emitted from "Macalube di Aragona" mud volcanoes (Sicily, Italy)**

F. Grassa, G. Capasso, R. Favara, Y. Oliveri, A. Sollami

P18 **Stable isotope ratio analysis for authentication of red yeast rice**

M. Perini, G. Carbone, F. Camin

P19 **Reconstructing climate changes from ombrotrophic peatlands using stable isotopes**

L. Poto, M. Segnana, J. Gabrieli, C. Barbante

P20 **$\delta^{18}O$ and deuterium excess records from the GV7 ice core (Oates coast, East Antarctica)**

B. Stenni, E. Selmo, G. Dreossi, M. Frezzotti, B. Narcisi, A. Spolaor, S. Becagli, B. Delmonte, J. Gabrieli, C. Scarchilli

P21 **Methionine incorporation into the breast muscle of broiler chickens at the final fase**

A.C. Stradiotti, C. Ducatti, A. Celso Pezzato

P22 **$^{87}Sr/^{86}Sr$ TIMS analyses in the food chain of white wines and their use as geological fingerprint for tracing their geographic provenance**

I. Tescione, S. Marchionni, E. Braschi, F. Tassi, C. Romano, S. Tommasini, M. Mattei, S. Conticelli

P23 **The potentiality of the stable isotope analyses in the discrimination between human and climate forcing: the study case of Arslantepe (Turkey)**

C. Vignola, F. Marzaioli, A. Masi, I. Passariello, L. Sadori, F. Terrasi

P24 **$\delta^{18}O$ and δD in water vapor and precipitation for a coastal lagoon**

D. Zannoni, A. Bergamasco, G. Rampazzo, B. Stenni

P25 **Results of official controls by isotope ratio mass spectrometry of $\delta^{13}C$ in honey**

A. Deluca, P.P. Curia, V. Di Martino, F. Fuselli, P. Tolomei